

A NEW SPECIES OF *CRYPTANTHA* (BORAGINACEAE) FROM NEVADA

Kaye H. Thorne¹ and Larry C. Higgins²

ABSTRACT.— Described as new is *Cryptantha welshii* Thorne & Higgins from the White River Valley of Nye County, Nevada.

During investigations of the flora of southern Nevada it became evident that a previously undescribed species of *Cryptantha* was present among the mound-forming inhabitants of the white tuffaceous deposits in the White River Valley in Nye County, Nevada. This silicious material is present as abandoned playa deposits along the margin of the White River Valley. The deposits support a very low density of plant cover, but the species are unique. Included among the inhabitants are *Frasera gypsicola*, *F. albomarginata*, *Lepidium nana*, *Artemisia pygmaea*, *Phlox tumulosa*, and *Leptodactylon caespitosum*. There are other low, caespitose plants among the assemblage, but they have broader distributions.

The species of *Cryptantha* is described as follows:

Cryptantha welshii Thorne & Higgins,
sp. nov.

Species nova *Cryptantha hoffmannii* I. M. Johnston proxima a qua imprimis differt foliis pustulatis inferioribus nuculis brevioribus stylo superatis 1–2 mm plantis parvioribus et tenellis.

Caespitose perennial, 0.5–1.4 dm tall; stems several, erect, arising from a branched caudex, strigose to sericeous, underhair with spreading setae; leaves spatulate to oblanceolate, strigose or subtomentose, setose, those of the lower surface pustulate, gradually reduced upwards; inflorescence cylindrical, densely setose, strigose, uppermost cymes

elongating at maturity; calyx segments lanceolate, densely setose, in anthesis 3–4 mm long, in fruit becoming 5–8 mm long; corolla white, fornicies yellow, 0.5 mm long, the tube shorter than the calyx, 2.5–3 mm long, 4–5 mm wide; nutlets 4, or 1–3 by abortion, broadly pear shaped to somewhat lanceolate-ovate, 1.5–2.5 mm long, 1.5–2 mm wide, margins more or less in contact, dorsal surface muricate to tuberculate, with a broad rugose central ridge, ventral surface scarcely muricate, the scar shortly open, triangular, the margin not elevated; style 1–1.5 mm longer than the nutlets.

TYPE.— USA. Nevada: Nye County, White River Valley, 2.1 miles W of Sunnyside, on the road to Hot Creek Campground, T7N, R61E, S36, at 5150 ft (1567 m) elevation, exposed rounded ancient playa remnant of white “tuffaceous” material, occasionally mixed with sand and valley fill, 5 June 1979, K. H. Thorne and B. F. Harrison 578 (Holotype BRY; Isotypes WTU, NY).

ADDITIONAL SPECIMENS: Nevada, Nye County, T7N, R62E, S31, White River Valley, Sunnyside Hot Creek Campground road, 2.5 miles W of Hwy 318, 5230 ft elev., salt desert shrub community, 30 June 1980, B. T. Welsh & K. H. Thorne 391 (BRY); Garden Valley, 18.4 mi S of Hot Creek Campground, in a *Chrysothamnus viscidiflorus*-*Artemisia* community, on whitish sandy clay slopes, 10 June 1980, B. F. Harrison & K. H. Thorne 13298 (BRY); White River Valley, 6.7 mi N of Hot Creek Campground, T7N, R61E, S17, on limestone hill in valley center, on white

¹Herbarium, Life Science Museum, Brigham Young University, Provo, Utah 84602.

²Herbarium, Department of Biology, West Texas State University, Canyon, Texas 79015.

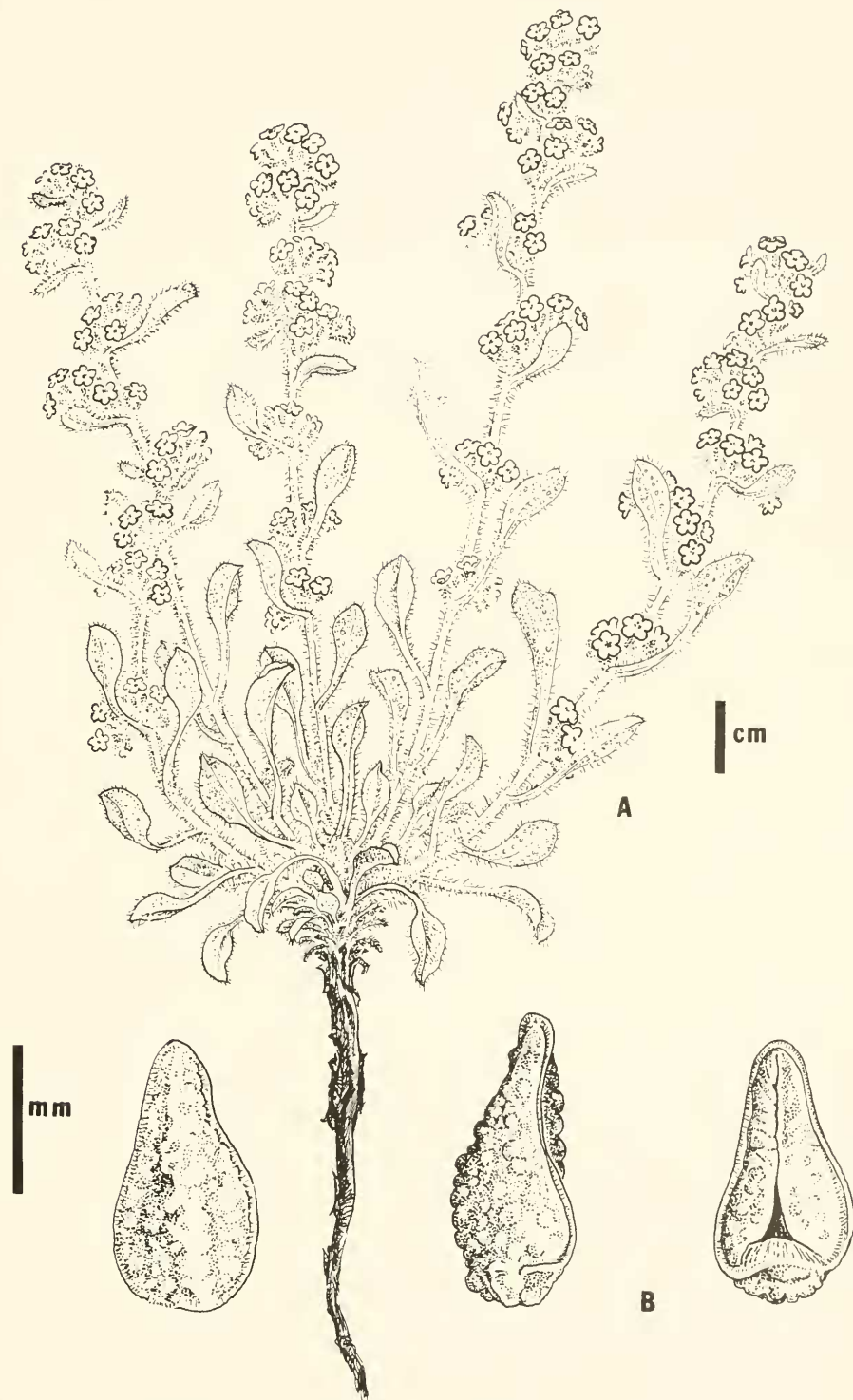


Fig. 1. *Cryptantha welshii* Thorne & Higgins: A, habitat of plant; B, seed (left to right) dorsal, side, and ventral views.

outcrops, 31 May 1980, K. H. Thorne & B. T. Welsh 897 (BRY). White Pine County, White River Valley, Jakes Wash, T15N, R60E, S24, pinyon-juniper and desert shrub communities with mound-forming plants on white tuf-

faceous outcrops, 5 June 1980, K. H. Thorne et al. 987 (BRY).

Relationships of *Cryptantha welshii* apparently lie with *C. hoffmannii* Jtn. (Munz 1968). They are compared below:

- | | |
|----|--|
| 1. | Leaves pustulate on both surfaces; nutlets ovate 3–3.5 mm long, 2–2.5 mm wide; style exceeding nutlets 0.2–0.8 mm; plant robust <i>C. hoffmannii</i> |
| — | Leaves pustulate on lower surface only; nutlets 1.5–2.5 mm long, 1.5–2 mm wide; style exceeding nutlets 1–2 mm; plant smaller, more delicate <i>C. welshii</i> |

The known distributional area of *C. hoffmannii* is in the White Mountains and West-guard Pass areas of Inyo County, California (Higgins 1971).

The species is named in honor of Stanley L. Welsh, whose dedication to the study of the flora of the Intermountain and Great Basin regions has given a vast fund of new information concerning plant communities and

rare or unusual plant species found in these regions. His help and encouragement are deeply appreciated.

LITERATURE CITED

- HIGGINS, L. C. 1971. Revision of *Cryptantha* subgenus *Oreocarya*. *BYU Sci. Bull. Biol. Ser.* 13(4):1–63.
- MUNZ, P. A. 1968. *A California flora and supplement*. Univ. of California Press, Berkeley, California.